

Can we really afford an International Code of Mycological Nomenclature?

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Abstract — Proposals for establishing a new INTERNATIONAL CODE OF MYCOLOGICAL NOMENCLATURE are deemed unwise and unrealistic.

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It is clear that there is now a strong undercurrent determined to pursue adoption of a new CODE OF MYCOLOGICAL NOMENCLATURE for fungal names. The recent proposals by Hawksworth & al. (2009) take the other route, modifying the current INTERNATIONAL CODE OF BOTANICAL NOMENCLATURE (ICBN), including renaming that as the INTERNATIONAL CODE OF BOTANICAL AND MYCOLOGICAL NOMENCLATURE.

This journal has from its inception in 1974 carried as its masthead the information that is devoted to fungal taxonomy and nomenclature. The founding co-editors, Grégoire Hennebert and I, were first and foremost taxonomists, but deeply involved with the code (rules and regulations) of nomenclature, to the point of considering ourselves as nomenclaturalists. By no means are all taxonomists interested in involving themselves in changing and interpreting the Codes governing their names, and many only reluctantly attempt to follow the dictates of such Codes. The cladists, aware that the Hennigian process leads to the impossibility to name or even rank taxa, are prepared to discard our Codes and take up a new PhyloCode.

Continuing efforts to bring together a unified Code covering all organisms have never gained much ground. Bacteriologists and virologists, unsatisfied with either the Botanical Codes or the Zoological Codes have established their own Codes. Even within the botanical community there is a separate International Code of Nomenclature for Cultivated Plants.

The reason that fungi have been, since the very earliest Codes, treated as “plants” is that most have been studied by botanists, not zoologists. Our current understanding that the fungi are far more closely related to animals than plants is

not a valid argument to remove them from a Botanical Code for nomenclatural decisions. In the same issue of MYCOTAXON in which the paper by Hawksworth & al. (2009) appeared is another by Redhead & al. (2009), proposing that the ICBN be amended by excluding the phylum *Microsporidia*, a group of probable fungal relatives that has always been treated as animals and which can be accommodated under the current Zoological Code. This pragmatic solution solves the problem that if these were to be considered under the ICBN, most of the names proposed would not be valid under that code (e.g., most lack a required Latin diagnosis/description when published after 1935).

Would a Mycological Code solve problems? I raise these issues here aware that my joining this debate has only my personal involvement with the ICBN as an excuse. My Ph.D. thesis work (Korf 1952) had alerted me to many nomenclatural problems. I became a Life Member of the International Association of Plant Taxonomists, publishers of the journal TAXON, the official journal of the International Botanical Congresses, and served for decades as a member and Secretary of their Committee on Fungi (and Lichens), and later as a member of their General Committee. Over 100 of my publications have been wholly or mainly nomenclatural. I have also taught courses in Botanical Nomenclature in both the Plant Pathology Department and in the Bailey Hortorium unit at Cornell University over several decades. From my perspective I find little excuse for withdrawing from the ICBN to establish a separate Mycological Code. My major reasons are these:

- The Botanical Code has been amended in many ways to accommodate the special problems of fungi, with the problems of multiple life stages being separately named (Art. 59) surely the most contentious (and most consistently revised) article in the Code, with the concept and application of sanctioned fungal names a probable close second. Would a separate Mycological Code do better at these issues? I believe not. Our botanical colleagues have bent over backwards in acceding to our wishes.
- Herein lies my major objection to formation of a new mycological Code: I firmly believe that there are far too few fungal nomenclaturalists who are willing to devote their time and effort not only to establishing a new Code, but in publishing and revising such a Code. Within the botanical community we have a far greater number of nomenclaturalists on whose knowledge and wisdom we rely. Time after time they have continued to help us with our problems. We would, I'm sure, lose that cooperation if we were to ask them to help us out with "our" Code, while they are happy to make sure that if they help revising "their" Code they also can make sure that the special features proposed for fungi do not adversely affect any other botanical groups.

- Perhaps those proposing a new Code do not have a historical memory of what happened in the 1904 to 1910 period, when the then operative International Botanical Code met opposition by a largely US contingent of attendees at the International Botanical Congresses in those years. This led to the formulation of a separate “AMERICAN CODE OF BOTANICAL NOMENCLATURE,” primarily differing in provisions concerning typification of names. Even as late as 1942 (e.g., Seaver 1942) we had some authors following the American Code and some the International Code, with distinctly differing results in the names that were applied. I can easily foresee similar decades during which some mycologists would continue to follow the Botanical Code, with another group following a Mycological Code. A worse nightmare I do not wish to imagine.

- Will those who work with the group mycologists called “Oomycetes” that is clearly a plant lineage, not a fungal one, choose to follow a Botanical Code or a new Mycological Code? Some textbooks now actually exclude these organisms from “fungi” on evolutionary grounds, despite the fact that it is only mycologists who work with these, not botanists, nor zoologists. The pragmatic solution is that everything mycologists study are fungi, despite their phylogenetic lineage as plants or animals (e.g., mycetozoa). Unrealistic is the word that best covers the establishment of a separate MYCOLOGICAL CODE OF NOMENCLATURE. Many of my closest colleagues have argued on one or the other side of this issue. I understand their concerns, and wish I could please them all. The title of this paper expresses what I consider the crux of the solution. And the answer must be a resounding “no.”

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